

CLAIMS

1. An excess pressure relief system for a tank carried on a vehicle, comprising:
a relief valve for relieving excess pressure in the tank; and
5 a diffuser provided on a discharge line downstream of the relief valve.
2. An excess pressure relief system for a tank carried on a vehicle, comprising:
a relief valve for relieving excess pressure in the tank; and
a control valve for controlling gas discharge rate, provided on a discharge line
downstream of the relief valve.
- 10 3. An excess pressure relief system for a tank carried on a vehicle, comprising:
a relief valve for relieving excess pressure in the tank;
a control valve for controlling gas discharge rate, provided on a discharge line
downstream of the relief valve; and
a diffuser provided downstream of the control valve.
- 15 4. The excess pressure relief system according to claims 1 or 3, wherein the diffuser
comprises:
an inner perforated member connected to the discharge line,
an outer perforated member surrounding the inner member, and
an intermediate diffuser member arranged in a space between the inner and
20 outer perforated members.
5. The excess pressure relief system according to claim 4, wherein
the diffuser member is made of a perforated plate having holes of
predetermined sizes.
6. The excess pressure relief system according to claim 4, wherein
25 the diffuser member comprises a mass of unwoven metal threads.
7. The excess pressure relief system according to claim 4, wherein
the diffuser member is made of a net of a predetermined mesh size.
8. The excess pressure relief system according to claims 1 or 3, wherein the diffuser

comprises:

a deflector for deflecting gas flow discharged from the relief valve, the deflector having a planer wall portion on which the discharged gas flow impinges and a tubular wall portion for turning the direction of the gas flow.

- 5 9. The excess pressure relief system according to claims 2 or 3, wherein the control valve comprises:

a valve element which opens/closes an outlet of the relief valve, and
a resilient member which generates force to close the valve element.

- 10 10. The excess pressure relief system according to claims 2 or 3, wherein the control valve comprises:

a valve element which opens/closes an outlet of the relief valve,
a solenoid to drive the valve element, and
a controller for controlling duty ratio of the solenoid.

11. An excess pressure relief system for a tank carried on a vehicle, comprising:
15 a relief valve for relieving excess pressure in the tank; and
diffusing means provided on a discharge line downstream of the relief valve.